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10/624,661	07/22/2003	Mark Honore Shellans	PFD-0301	7009
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		EXAMINER		
		SHIMIZU, MATSUICHIRO		
		ART UNIT PAPER NUMBER		
		2635		
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Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/624,661

Applicant(s)

SHELLANS, MARK HONORE

Examiner

Matsuichiro Shimizu

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 22 July 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 July 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### Claim Rejections – 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 8–10 and 12 are rejected under 35 U.S.C. 102(b) as being anticipated by Pidwerbetsky .

Regarding claim 8, Pidwerbetsky et al. (6,084,530) teaches a tagging and tracking system, comprising:

**a plurality of modulating tags (col. 4, lines 9–13, information signal 306 to modulate sub-carrier frequency) each attached to one of a plurality of mobile units;**

**a plurality of electromagnetic transmitters positioned in a plurality of key locations (Fig. 1, col. 2, lines 1-10, interrogators associated with toll collection system);**

**a plurality of receivers (col. 2, lines 34-41, interrogators determine tag id and speed of the vehicle), one of the plurality of receivers receiving a reflected signal (col. 2, lines 34-41, interrogators determine tag id and speed of the vehicle via reflected signal or backscatter) from one of the plurality of modulating tags; and**

**a database (col. 2, lines 7-10, identification of tags in security access application implies database for comparison of tag id; security access implies tracking of certain rfid tag) coupled to the plurality of receivers comparing (col. 2, lines 34-41, interrogators determine tag id and speed of the vehicle via reflected signal or backscatter) the reflected signal to a predetermined signal.**

Regarding claim 9, Pidwerbetsky teaches the system of claim 8, wherein the reflected signal is a phase modulated signal (cl. 4, lines 28-32, BPSK, MSK).

Regarding claim 10, Pidwerbetsky teaches 10. The system of claim 8, wherein the

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reflected signal defines a unique identifier (col. 3, lines 22-30, identity of tag implies unique identifier of the tag) for one of the plurality of modulating tags.

Regarding claim 12, Pidwerbetsky teaches the system of claim 8, wherein the plurality of mobile units are motor vehicles (col. 2, lines 1-10, vehicles).

### **Claim Rejections - 35 USC § 103**

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-7 and 15-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pidwerbetsky et al. (6,084,530) in view of Seal (6,396,438).

Regarding claim 1, Pidwerbetsky teaches a **tagging and tracking system, comprising:**

**an electromagnetic transmitter having an output (Fig. 2, transmitter antenna 204);**

**a modulating tag (col. 4, lines 9-13, information signal 306 to modulate sub-carrier frequency) embedding an information signal on a reflection (col. 3, lines 22-30, modulated backscatter (MBS)) of the output from the electromagnetic transmitter;**

**a receiver (Fig.2, receiver via antenna 106) for receiving the reflection having the information signal, the receiver having a received output; and**

**a processor (Fig.2, processor 200) coupled to the received output for decoding the information signal.**

But Pidwerbetsky does not teach **the modulating tag includes a tamper proof system.**

However, Seal teaches, in the art of transponder system, **the modulating tag includes a tamper proof system** (Fig. 14, col. 10, lines 51-56, tamper detector 1410) for the purpose of **providing higher level of security.**

Therefore, it would have been obvious to a person skilled in the art at the time the invention was made to include **the modulating tag includes a tamper proof system** in the device of Pidwerbetsky because Pidwerbetsky suggests identification detector receiving the reflected component and Seal teaches **the modulating tag includes a tamper proof system for the purpose of providing higher level of security.**

Regarding claim 2, Pidwerbetsky teaches the system of claim 1, further including a database (col. 2, lines 1-10, data retrieved from tag suggests database in the network 102) coupled to the processor.

Regarding claim 3, Pidwerbetsky teaches the system of claim 1, wherein the information signal is a periodic signal (col. 4, lines 28-32, information signal of BPSK, QPSK suggest periodic signal).

Regarding claim 4, Pidwerbetsky teaches the system of claim 1, wherein the information signal is modulated at a frequency higher than a probable Doppler shift (col. 7, lines 31-46, RF carrier and  $f_s$  are larger than Doppler shift  $\Delta f$ ).

Regarding claim 5, Pidwerbetsky teaches the system of claim 4, wherein the information signal is a modulated signal.

But Pidwerbetsky does not teach **the information signal is a polarization modulated signal.**

However, Seal teaches, in the art of transponder system, **the information signal** (col. 1, lines 28-62, ID tagging associated with RFID suggests id signal or information

signal) is a **polarization modulated signal** (col. 14, lines 26-34, modulation response with different polarization) for the purpose of **providing tag location**.

Therefore, it would have been obvious to a person skilled in the art at the time the invention was made to include **the modulating tag includes the information signal is a polarization modulated signal** in the device of Pidwerbetsky because Pidwerbetsky suggests the information signal is a modulated signal and Seal teaches the information signal is a polarization modulated signal for the purpose of providing tag location.

Regarding claim 6, Pidwerbetsky teaches the system of claim 1, wherein the modulating tag has a battery for power (Fig. 3, battery 310).

Regarding claim 7, Pidwerbetsky teaches the system of claim 6, wherein the modulating tag includes an integrated circuit (col. 4, lines 28-32, PSK, BPSK and QPSK suggest multiple logic switches forming information signal) that drives a plurality of switches that create the information signal.

Regarding claim 15, Pidwerbetsky teaches a tagging and tracking system, comprising:

a plurality of modulating tags (Figs. 1 and 4; col. 2, lines 1-10, speeding vehicle including RFID tag for identification speed measurement) attached to a plurality of mobile units, each of the plurality of tags capable of modulating a polarization of a received signal;

an electromagnetic transmitter having an output capable of being pointed (Fig. 4, col. 5, lines 17-30, pointed transmitter associated with police Doppler radar interrogator) at one of the plurality of modulating tags;

an electromagnetic receiver receiving a reflected signal (Fig. 4, col. 5, lines 17-30, reflected signal associated with police Doppler radar interrogator) from one of the plurality of modulating tags; and

a processor uniquely (col. 3, lines 22-30, identity of tag implies unique identifier of the tag) identifying the one of the plurality of modulating tags.

But Pidwerbetsky does not teach the information signal is modulating a polarization of a received signal.

However, Seal teaches, in the art of transponder system, the information signal (col. 1, lines 28-62, ID tagging associated with RFID suggests id signal or information signal) is a polarization modulated signal (col. 14, lines 26-34, modulation of polarized signal X, Y or Z direction from interrogator 402) for the purpose of providing tag location.

Therefore, it would have been obvious to a person skilled in the art at the time the invention was made to include the information signal is a polarization modulated signal in the device of Pidwerbetsky because Pidwerbetsky suggests the information signal is a modulated signal and Seal teaches the information signal is a polarization modulated signal for the purpose of providing tag location.

Regarding claim 16, Pidwerbetsky teaches the system of claim 15, further including a database (col. 2, lines 7-10, identification of tags in security access application implies database for comparison of tag id; security access implies tracking of certain rfid tags) coupled to the processor, wherein the database contains an information associated with the one of the plurality of modulating tags.

Regarding claim 17, Pidwerbetsky teaches the system of claim 15, wherein one of the plurality of modulating tags has been a reflected signal (Fig. 4, col. 5, lines 17-30, reflected signal associated with police Doppler radar interrogator).

But Pidwerbetsky does not teach **one of the plurality of modulating tags has been tampered with and reflects a tampered signal.**

However, Seal teaches, in the art of transponder system, **one of the plurality of modulating tags has been tampered with and reflects a tampered signal** (Fig. 14, col. 10, lines 42-60, tamper detector 1410 suggests activation of reflected signal) for the purpose of **providing higher level of security.**

Therefore, it would have been obvious to a person skilled in the art at the time the invention was made to include **one of the plurality of modulating tags has been tampered with and reflects a tampered signal** in the device of Pidwerbetsky because Pidwerbetsky suggests **one of the plurality of modulating tags has been a reflected signal** and Seal teaches **one of the plurality of modulating tags has been tampered with and reflects a tampered signal for the purpose of providing higher level of security.**

Regarding claim 18, Pidwerbetsky teaches the **system of claim 15, wherein each of the plurality of modulating tags has identification system.**

But Pidwerbetsky does not teach **a tamper proof system.**

However, Seal teaches, in the art of transponder system, **a tamper proof system** (Fig. 14, col. 10, lines 42-60, tamper detector 1410 suggests activation of reflected signal) for the purpose of **providing higher level of security.**

Therefore, it would have been obvious to a person skilled in the art at the time the invention was made to include **a tamper proof system** in the device of Pidwerbetsky because Pidwerbetsky suggests **identification system** and Seal teaches **a tamper proof system** (Fig. 14, col. 10, lines 42-60, tamper detector 1410 suggests activation of reflected signal) for the purpose of **providing higher level of security.**

Regarding claim 19, Pidwerbetsky teaches the system of claim 18, wherein the information signal is a periodic signal (col. 4, lines 28-32, information signal of BPSK, QPSK suggest periodic signal).



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Regarding claim 20, Pidwerbetsky teaches the system of claim 19, wherein the information signal has a frequency that is higher than a probable Doppler shift (col. 7, lines 31-46, RF carrier and f-s are larger than Doppler shift del-f).

Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Pidwerbetsky et al. (6,084,530) in view of Shaw (6,563,417).

Regarding claim 11, Pidwerbetsky teaches **the system of claim 10, wherein the database contains the unique identifier.**

But Pidwerbetsky does not teach **an associated group of information related to the unique identifier.**

However, Shaw teaches, in the art of transponder system, **an associated group of information related to the unique identifier** for the purpose of **providing additional search option.**

Therefore, it would have been obvious to a person skilled in the art at the time the invention was made to include **an associated group of information related to the unique identifier** in the device of Pidwerbetsky because Pidwerbetsky suggests **the unique identifier** and Shaw teaches **an associated group of information related to the unique identifier** for the purpose of **providing additional search option.**

Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Pidwerbetsky et al. (6,084,530) in view of Mish (6,025,784).

Regarding claim 13, Pidwerbetsky teaches **the system of claim 12, wherein the plurality of modulating tags are id tag of vehicle.**

But Pidwerbetsky does not teach **the plurality of modulating tags are each a license tag.**

However, Mish teaches, in the art of transponder system, **the plurality of modulating tags are each a license tag** (col. 3, lines 8-40, **RFID tag on the license plate**) for the purpose of **providing vehicle identification.**

Therefore, it would have been obvious to a person skilled in the art at the time the invention was made to include **the plurality of modulating tags are each a license tag** in the

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device of Pidwerbetsky because Pidwerbetsky suggests **the unique identifier** and Mish teaches **the plurality of modulating tags are each a license tag** for the purpose of **providing vehicle identification**.

Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Pidwerbetsky in view of Mish as applied to claim 13 above, and further in view of Shaw.

Regarding claim 14, Pidwerbetsky teaches **the system of claim 13, wherein the plurality of key locations are associated with interrogators in electronic toll collection system (col. 2, lines 3-7)**.

But Pidwerbetsky in view of Mish does not teach **the plurality of key locations are traffic choke points in a city**.

However, Shaw teaches, in the art of transponder system, **the plurality of key locations are traffic choke points in a city (Fig. 3, col. 5, lines 55-59, interrogators associated with distribution path implies interrogator providing traffic choke-point control wherein distribution path of warehouses are suggested in a large city)** for the purpose of **providing inventory flow control**.

Therefore, it would have been obvious to a person skilled in the art at the time the invention was made to include **the plurality of key locations are traffic choke points in a city** in the device of Pidwerbetsky in view of Mish because Pidwerbetsky in view of Mish suggests **the plurality of key locations are associated with interrogators in electronic toll collection system** and Mish teaches **the plurality of key locations are traffic choke points in a city** for the purpose of **providing inventory flow control**.

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*Contact Information*

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Matsuichiro Shimizu whose telephone number is 571-272-3066. The examiner can normally be reached on Monday through Friday from 8:00 AM to 4:30 PM. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Horabik, can be reached on 571-272-3068. The fax phone number for the organization where this application or proceeding is assigned is 571-273-3068.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703-305-8576).

Matsuichiro Shimizu

June 24, 2005



MICHAEL HORABIK  
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